

REMARKS

I. Office Action Summary

Claims 69-74, 81-97, 99-103 and 106-119 are pending. Claims 69, 91, 101, 109 and 115 are the independent claims. In the Office Action mailed August 10, 2007, the Examiner withdrew the indication of allowability of claims 69 and 101 based on a new reference.

Claims 69, 71-74, 99, 101-102 and 106-107 have now been rejected as obvious (35 U.S.C. §103(a)) over the combination of Smith et al (US 5,031,613) and Makhoul et al. (US 5,291,882). Claims 83-84 are rejected as indefinite under 35 U.S.C. §112, second paragraph.

Claims 91-97 and 109-119 were indicated as allowed and claims 70, 81-82, 85-90, 100, 103 and 108 were indicated as allowable if rewritten in independent form. Claims 83-84 were also indicated as allowable if the §112 rejection is overcome.

II. Rejection Under 35 U.S.C. § 103(a)

Applicant respectfully disagrees with the rejection of claims 69, 71-74, 99, 101-102 and 106-107 as obvious over Smith and Makhoul.

CLAIM 69

Applicant disagrees with the rejection of claim 69. Claim 69 recites a catheter shaft having a j-shaped distal end. As noted previously, Smith lacks this feature. The newly cited Makhoul reference also lacks this feature. Makhoul discloses an endotracheal tube 10 with an air tube 14 (intratracheal pulmonary ventilation tube) that connects internally with a main tube 18 to flush dead space gas that may accumulate in the main tube 18 toward the distal end. The distal end of the tube 18 is not curved or j-shaped. The air tube 14 internal to the main tube 18 is bent to provide a small flow of fresh air back toward the ventilator 50

so that dead air space is flushed back to the ventilator. The air tube 14 and the main tube 18 are part of the endotracheal tube 10 which is straight. Furthermore, the curved end of the air tube 14 is completely inside, and directed back up, the main tube 18. Thus the distal end of the endotracheal tube is not J-shaped as claimed, and only a lumen that is completely inside the straight-ended endotracheal tube is curved. In contrast to Makhoul which recites an endotracheal tube, the catheter of claim 69 is available for insertion into an endotracheal tube.

Additionally, the internally curved air tube 14 in Makhoul is not adapted at a proximal end to receive a medicine, nor is there any teaching or suggestion that the internal air tube 14 and main tube 18 could work to form an aerosol. Makhoul is clear that the air tube is meant to assist flushing the main tube 18 of air during exhalation so that dead space gas that may accumulate in the end of the main tube 18 will not be drawn back into the lungs during the next inhalation cycle (See Col. 5, line 42 – Col. 6, line 27). Makhoul does not teach or suggest any type of nebulization.

Smith discloses a separate catheter 2 and endotracheal tube 4. Even if Smith and Makhoul were combined, the combination would lack both the claimed j-shaped distal end of a catheter. Replacing the endotracheal tube 4 of Smith with the endotracheal tube 10 of Makhoul would still result in a non-curved catheter 2 from Smith that is removable from a straight endotracheal tube 10, where the endotracheal tube has an internal curved air-tube embedded in its wall and separate from the non-curved catheter. No catheter with a j-shaped distal end is disclosed or would result from the combination.

For at least these reasons, Applicant submits that claim 69 is allowable over the cited references individually or in combination. Claims 70-74 and 99-100 are dependent claims; therefore they are allowable for at least the same reasons provide for independent claim 69.

Claim 101

Applicant also disagrees with the rejection of claim 101. Claim 101 recites a catheter having a catheter shaft where the distal end comprises a j-shape. A distal orifice of a lumen in the catheter is located at the distal end of the catheter and aligned to generate a discharge of nebulized medicine in a direction toward the proximal end of the catheter shaft. For at least the same reasons as provided for claim 69, Applicant submits that claim 101 is allowable over the art of record. Claims 101-108 and 81-90 are dependent claims and are therefore allowable for at least the same reasons as provided for claim 101.

III. Rejection Under 35 U.S.C. § 112, second paragraph

Applicant has amended claim 81 to address the indefiniteness rejection regarding antecedent basis in claims 83-84. Claim 81 now depends from claim 103 such that the “distal gas orifice” and the “distal liquid orifice” are properly identified. With respect to the second distal gas orifice facing the distal gas or distal liquid orifice, Applicant notes that this is supported by, for example, the embodiment of FIG. 28.

IV. Allowable Subject Matter

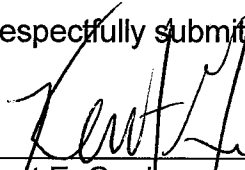
Applicant thanks the Examiner for the allowance of claims 91-97 and 109-119, in addition to the indication of allowable subject matter in claims 70, 100, 81-85-90, 103 and 108. In view of the above remarks and amendments, however, Applicant submits that all of the pending claims are now in condition for allowance.

V. Conclusion

Applicant has amended claim 69 to address an obvious informality in terminology. This amendment has not been made in view of any pending rejections and the scope of the claim remains the same. In view of the above remarks and amendment to claim 81, Applicant submits that all of the pending claims are in condition for allowance. Reconsideration and allowance is respectfully solicited.

If any issues remain or questions arise, the Examiner is invited to contact the undersigned by telephone to expedite processing of this application.

Respectfully submitted,



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